

# SERVICE MANUAL

SOLID-STATE REVERBERATION AMPLIFIER

## SANSUI RA-700



**Sansui**

SANSUI ELECTRIC CO., LTD.

# 1. SPECIFICATIONS

## RATED OUTPUT VOLTAGE

.....300mV (at 1,000Hz, Reverberation time minimum Input level 200mV)

## MAXIMUM INPUT VOLTAGE

.....3V (at 1,000Hz, Reverberation time minimum)

## HARMONIC DISTORTION

.....Less than 0.2% (at 1,000Hz, Reverberation time minimum output level 300mV)

## FREQUENCY RESPONSE

..20 to 30,000Hz  $\pm 2$ dB  
(at Reverberation time minimum)  
20 to 30,000Hz  $\pm 10$ dB  
(at Reverberation time maximum)

## SIGNAL TO NOISE RATIO

.....65dB (at output level 300mV)

## REVERBERATION TIME

..1.9 to 3.2 second (at 1,000Hz)

## INPUT IMPEDANCE

.....More than 200k ohms (at 1,000Hz)

## INPUT AND OUTPUT JACKS

.....INPUT

OUTPUT

TAPE DECK—A

TAPE DECK—B

LOAD IMPEDANCE .....100k ohms

## SWITCHES AND CONTROLS

REVERBERATION MODE..ON, OFF, RECORD

TAPE MODE .....REC/PLAY—B REC/PLAY—A

A—B DUBBING

B—A DUBBING

## POWER REQUIREMENT

POWER VOLTAGE .....100, 117, 220, 240V 50/60Hz

POWER CONSUMPTION..9W (rated)

SEMI-CONDUCTORS ....Transistors: 11 Diodes: 3

DIMENSIONS .....11 $\frac{1}{16}$ " (280mm) W,

4 $\frac{5}{16}$ " (125mm) H,

10 $\frac{7}{10}$ " (264mm) D

WEIGHT .....9.3lbs (4.2kg) Net

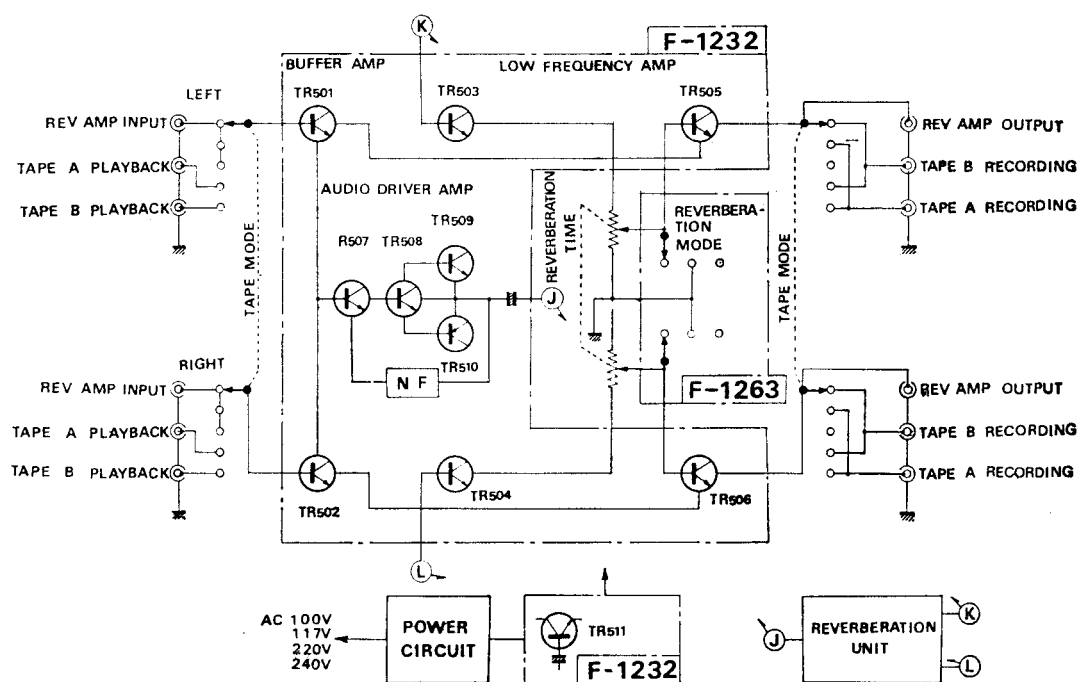
11.9lbs (5.4kg) Packed

\* Design and specifications subject to change without notice for improvements.

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## 2. BLOCK DIAGRAM



## 3. THREADING OF ECHO LENS CORD

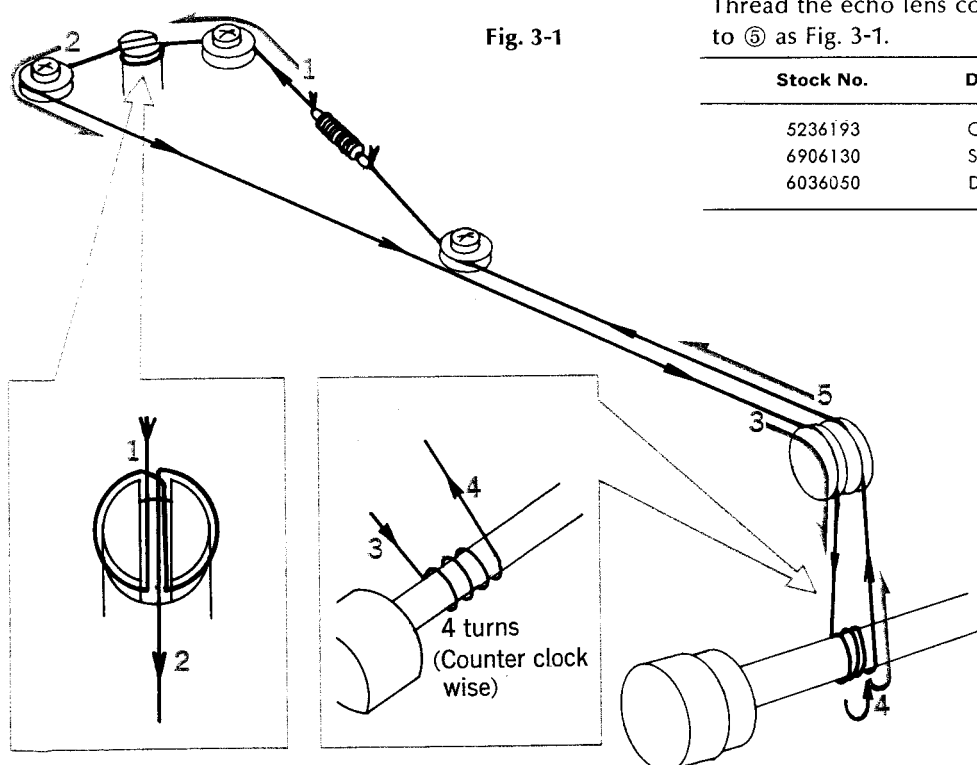


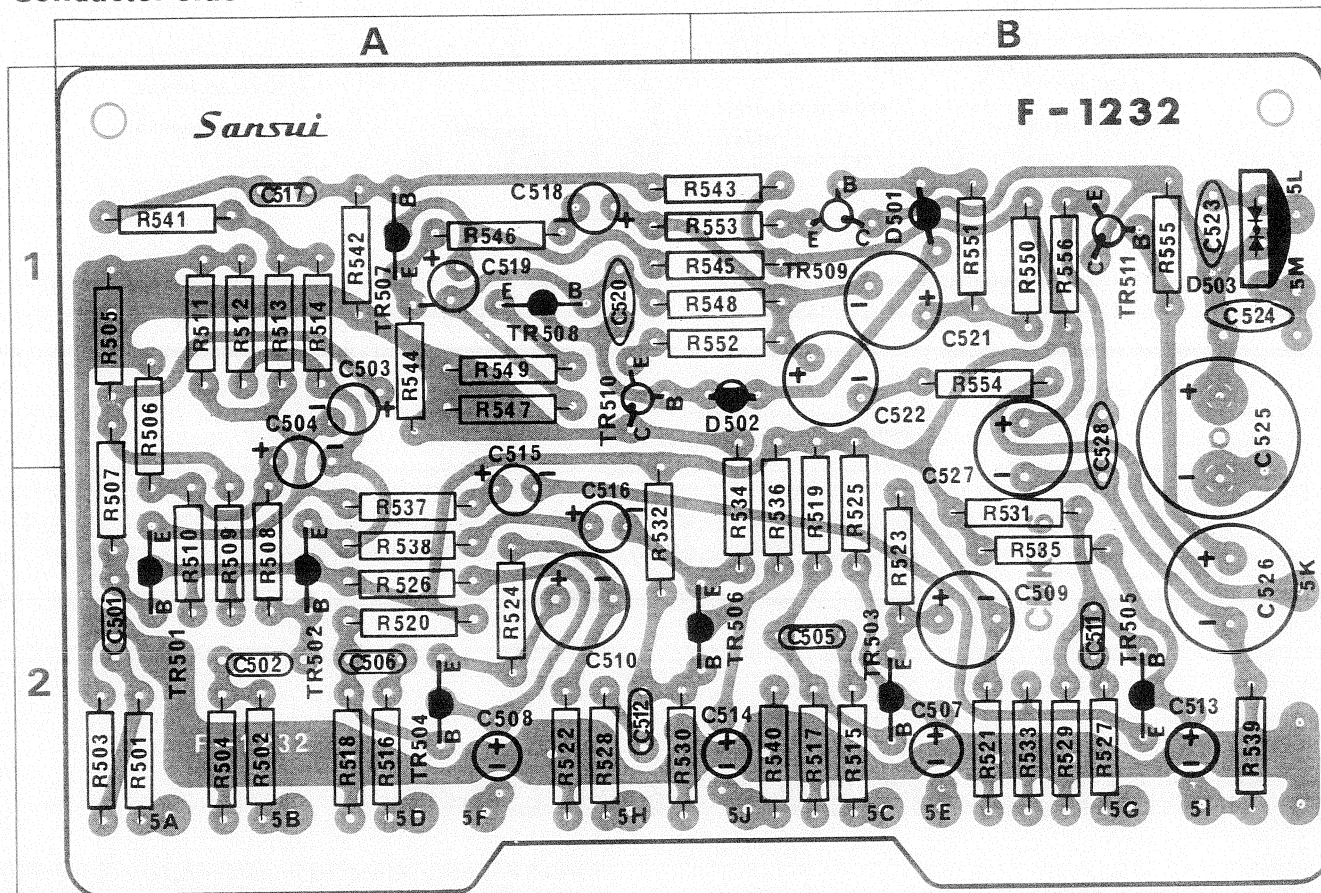
Fig. 3-1

Thread the echo lens cord in numerical order from ① to ⑤ as Fig. 3-1.

Stock No.	Description
5236193	Cord Support
6906130	Spring (F)
6036050	Dial Cord (0.6mmφ)

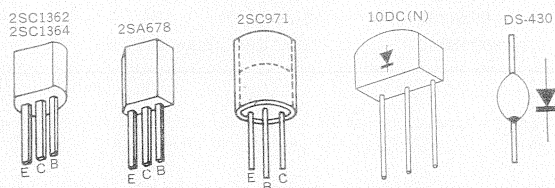
# 4. PARTS LOCATION AND PARTS LIST

## 4-1. F-1232A Audio Driver Circuit Board (Stock No. 7592370 Complete Board F-1232A) Conductor Side



### Parts List

Parts No.	Stock No.	Description	Position
TR501,502	0306141, 2	2SC1362⑤ (7, 8)	2 A
TR503,504	0306141, 2	2SC1362⑤ (7, 8)	2 B . 2 A
TR505,506	0306141, 2	2SC1362⑤ (7, 8)	2 B . 2 A B
TR507,508	0306141, 2	2SC1362⑤ (7, 8)	Transistor
TR509	0305360, 1	2SC734 (O.Y.)	
TR510	0300100, 1	2SA561 (O.Y.)	1 A
TR511	0305530, 1	2SC971 (2, 3)	1 B
D501	0340090	DS-430	1 B
D503	0310680	10DC (N)	1 B
C501,502	0601158	0.15μF 50V M.C.	2 B
C503,504	0511330	33μF 10V E.C.	1 A, 1, 2 A



### Abbreviations

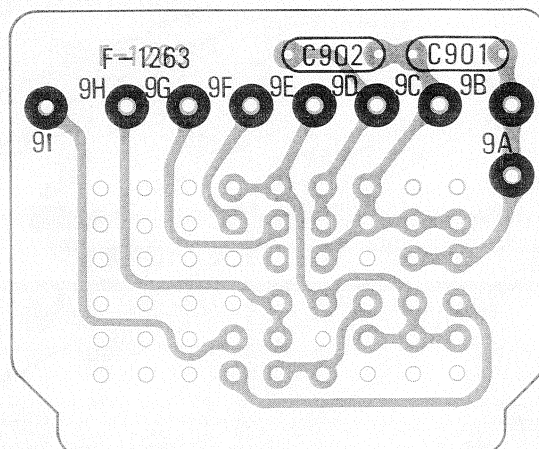
C.R. : Carbon Resistor	BP.E.C.: Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	C.C. : Ceramic capacitor
Ce.R. : Cement Resistor	Mi.C. : Mica Capacitor
M.R. : Metallized Film Resistor	O.C. : Oil Capacitor
M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor

Parts No.	Stock No.	Description	
C505,506	0601107	0.01 $\mu$ F 50V M.C.	2B, 2A
C507,508	0513100	10 $\mu$ F 25V E.C.	2B, 2A
C509,510	0510101	100 $\mu$ F 6.3V E.C.	2B, 2A
C511,512	0601477	0.047 $\mu$ F 50V M.C.	2B, 2A
C513,514	0514339	3.3 $\mu$ F 35V E.C.	2B
C515,516	0513100	10 $\mu$ F 25V E.C.	2B
C517	0601337	0.033 $\mu$ F 50V M.C.	1A
C518,519	0513100	10 $\mu$ F 50V E.C.	1A
C520	0660151	150 pF 50V C.C.	1A
C521,522	0513470	47 $\mu$ F 25V E.C.	1B
C523,524	0659009	0.002 $\mu$ F 500V C.C.	1B
C525	0515331	330 $\mu$ F	1, 2B
C526	0515101	100 $\mu$ F 50V E.C.	2B
C527	0515470	47 $\mu$ F	1, 2B
C528	0657473	0.047 $\mu$ F 50V C.C.	1, 2B
R501,502	0107222	2.2k $\Omega$	2A
R503,504	0107474	470k $\Omega$	2A
R505,506	0107274	270k $\Omega$	1A, 1, 2A
R507,508	0107563	56k $\Omega$	1, 2A, 2A
R509,510	0107823	82k $\Omega$	2A
R511,512	0107682	6.8k $\Omega$	1A
R513,514	0107683	68k $\Omega$	1A
R515,516	0107222	2.2k $\Omega$	2B, 2A
R517,518	0107683	68k $\Omega$	2B, 2A
R519,520	0107824	820k $\Omega$	2B, 2A
R521,522	0107561	560 $\Omega$	2B, 2A
R523,524	0107222	2.2k $\Omega$	2B, 2A
R525,526	0107393	39k $\Omega$	2B, 2A
R527,528	0107682	6.8k $\Omega$	2B, 2A
R529,530	0107124	120k $\Omega$	2B, 2A
R531,532	0107564	560k $\Omega$	2B, 2A
R533,534	0107222	2.2k $\Omega$	2B, 1, 2B
R535,536	0107682	6.8k $\Omega$	2B, 1, 2B
R537,538	0107332	3.3k $\Omega$	2A
R539,540	0107393	39k $\Omega$	2B
R541	0107222	2.2k $\Omega$	1A
R542	0107683	68k $\Omega$	1A
R543	0107224	220k $\Omega$	1A, B
R544	0107182	1.8k $\Omega$	1A
R545	0107682	6.8k $\Omega$	1A, B
R546	0107332	3.3k $\Omega$	1A
R547	0107682	6.8k $\Omega$	1A
R548	0107683	68k $\Omega$	1A, B
R549	0107181	180 $\Omega$	1A
R550	0107272	2.7k $\Omega$	1B
R551	0107102	1k $\Omega$	1B
R552,553	0107150	15 $\Omega$	1A, B
R554	0107220	22 $\Omega$	1B
R555	0107223	22k $\Omega$	1B
R556	0107101	100 $\Omega$	1B
R557	0107121	120 $\Omega$	

## 4-2. F-1263-6 Mode Selector Circuit Board

(Stock No. 7590460 Complete Circuit Board F-1263-6)

### Conductor Side

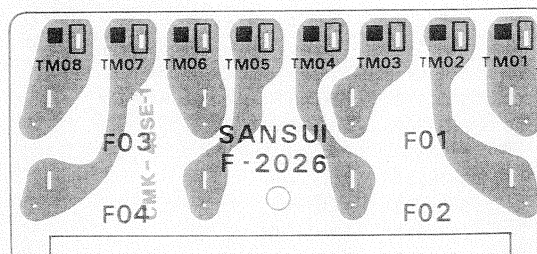


### Parts List

Parts No.	Stock No.	Description
S3	1130410	Push Switch
C	0601567	0.056 $\mu$ F 50V M.C.

## 4-3. F-2026 Fuse Circuit Board

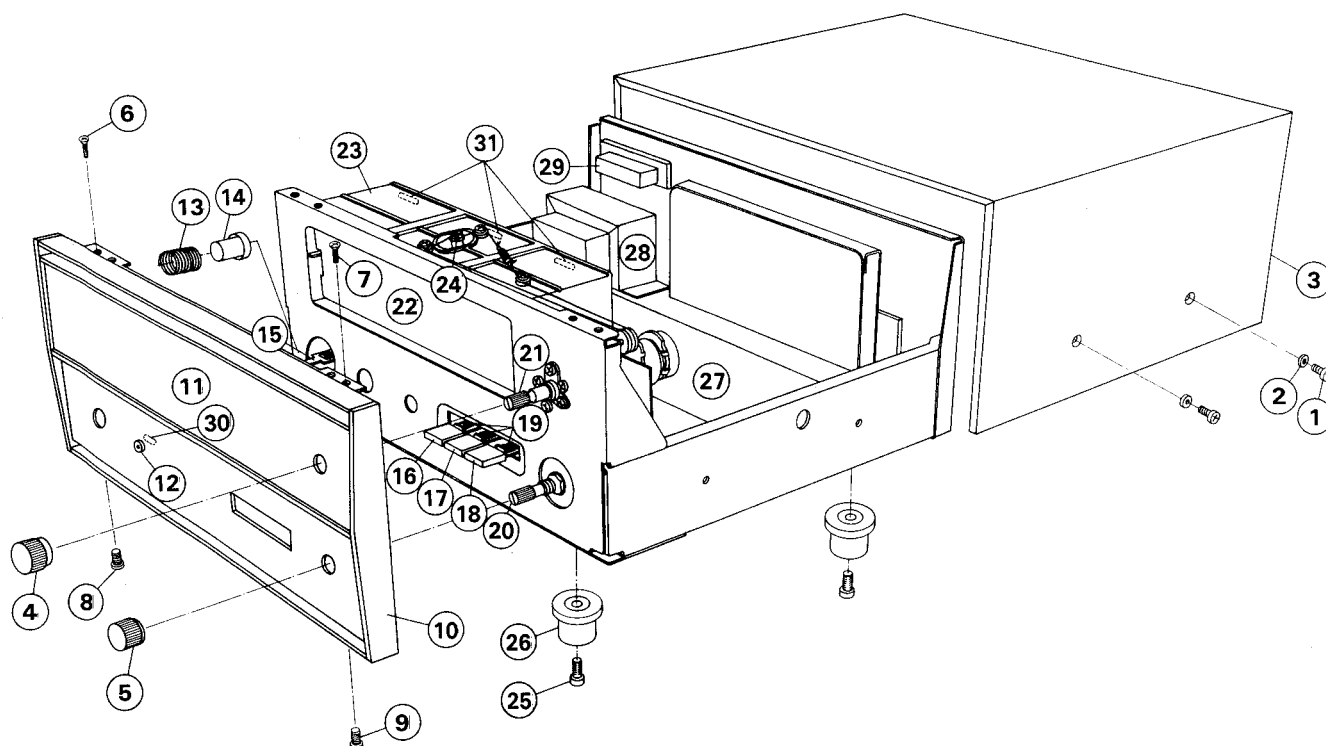
### Conductor Side



### Parts List

Parts No.	Stock No.	Description
F01	0432000	0.3A 250V
F02	0432000	0.3A 250V
F03	0432850	2.0A 250V
		Protector Fuse
2591370	F-2026 Printed Circuit Board	

## 4-4. Other Parts (Front Side)



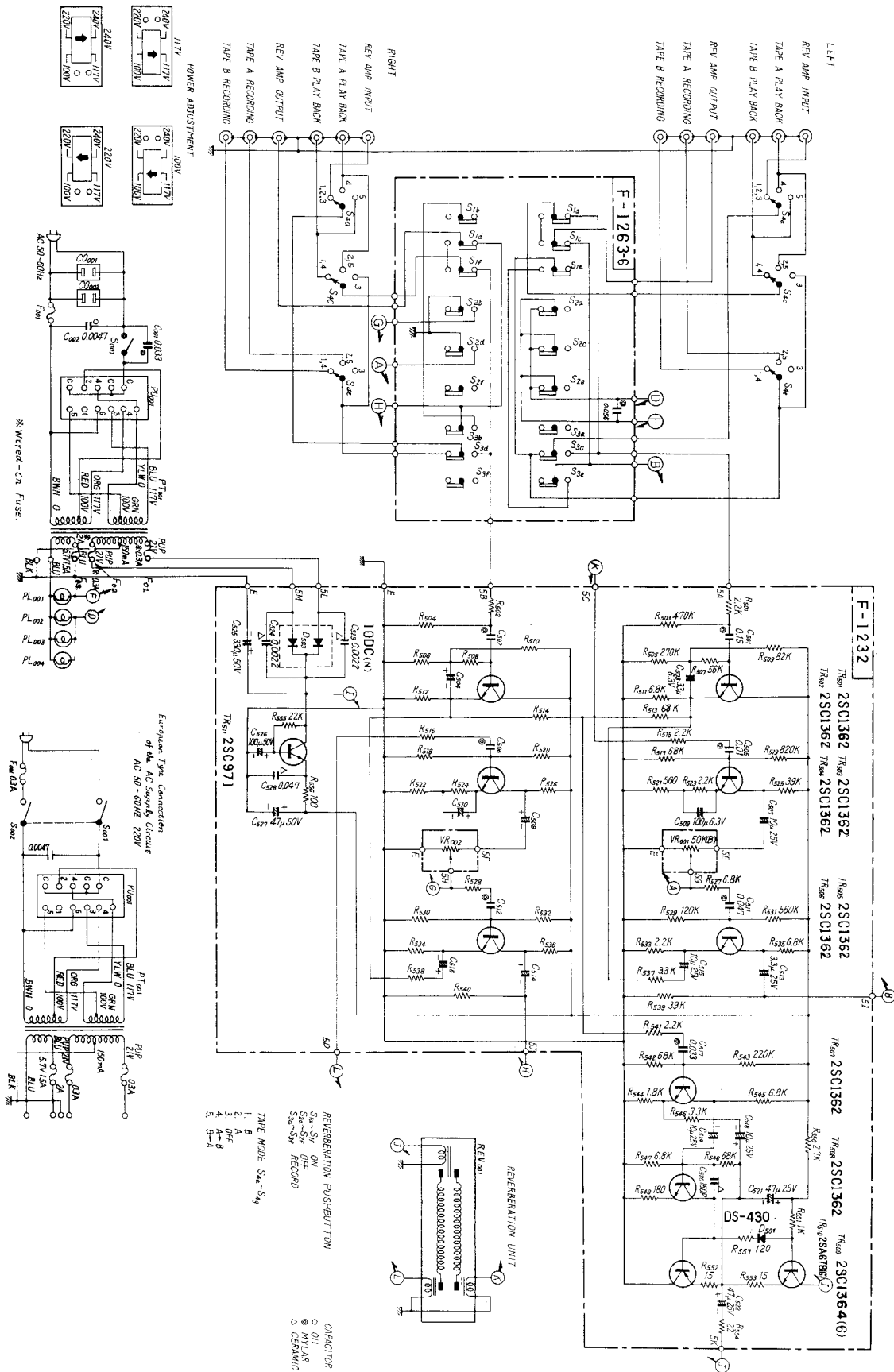
### Parts List

Parts No.	Stock No.	Description
1	5101163	Binding Head Screw, M4×10
2	5186110	Plain Washer, 4φ
3	5726890	Wood Case
4	5316207	D-1 Type Knob, REVERBERATION TIME volume
5	5316621	V-1 Type Knob, TAPE MODE switch
6	5102843	Flat Countersunk Head Screw, M3×6
7	5102843	Flat Countersunk Head Screw, M3×6
8	5101043	Binding Head Screw, M3×6
9	5101043	Binding Head Screw, M3×6
10	5309560	Front Panel
11	{ 5047810	Smoked Plate
	{ 5446131	Echo Lens
12	{ 5426102	Indicator
	{ 5076031	Ring, Indicator
13	6906020	Spring, POWER switch
14	5326013	Push Button, POWER switch
15	1130160	Push Switch, POWER switch
16	5326181	Y-2 Type Push, Button
17	5326181	Y-2 Type Push, Button
18	5326181	Y-2 Type Push, Button
19	1130410	Push Switch (3 Stage)
20	1102270, 1	Rotary Switch Y-2-6-5, TAPE MODE
21	1010531	50kΩ (B)×2, REVERBERATION TIME volume

Parts No.	Stock No.	Description
22	5446210	Pattern
23	{ 5066130	Inner Case, REVERBERATION INDICATOR
	{ 5066140	Outer Case, REVERBERATION INDICATOR
24	5236183	Cord Support
25	5101165	Binding Head Screw, M4×14
26	5516911	Foot (K-1526u)
27	4350010	Reverberation Unit
28	4000690	Power Transformer
29	{ 2410080	Voltage Selector, Socket
	{ 2410090	Voltage Selector, Plug
30	0400120	Power Indicator Lamp 0.15A 8V
31	0420020	Reverberation Indicator Lamp
CO001, 2	2450011	AC Outlet 0.25A 6.3V
CO01	0605337	0.033μF 250V M.C.
CO02	0659802	0.0047μF 1.4KV C.C.
FO01	0431212	0.5A (100~117V)
	0431202	0.3A (220~240V)
	2310030	Fuse Holder (Pilot lamp)
	2300020	Fuse Holder (AC Fuse)
	2320070	AC Indicator Socket
	2230010	Ground Terminal
	2200320	Input Terminal
	2200340	Input Terminal

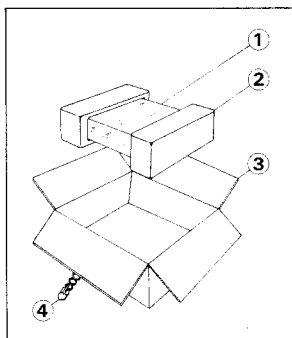
# 5. SCHEMATIC DIAGRAM

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## 6. PACKING LIST

Parts No.	Stock No.	Description
1	9116232	Vinyl Cover
2	9017680	Styrofoam Packing
3	9008241	Carton Case
4	5996080	Curl Stopper



## 7. ACCESSORY PARTS LIST

Stock No.	Description
3810180, 1	Pinplug Cord
9208670	Operating instructions
9228670	Operating instruction Sheet



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